

# Outline: Review of Water Supply Reliability Estimation Related to the Sacramento-San Joaquin Delta

Draft (5/2/2020)

Delta Independent Science Board

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## Summary Findings and Recommendations

- I. Introduction
  - a. Background
  - b. Overview of sources of water supply unreliability
  - c. Water supply reliability estimation
  - d. Partial inventory of applications of WSR to water management in California
- II. Metrics to assess water supply reliability
  - a. Common metrics
  - b. Metrics for environmental water supply reliability
  - c. The dilemmas and tyranny of metrics
- III. Scientific trends in water supply reliability estimation
  - a. Portfolio management
  - b. Water quality and quantity
  - c. Environmental water supply reliability
  - d. Climate change
  - e. Multiple objectives and conflict management
- IV. Developing and communicating insights for water managers and policy-makers
- V. Quality control to improve reliability estimation and its effectiveness
- VI. Future research needs
- VII. Conclusions and recommendations

## References

## Appendix A. Technical issues in estimating water supply reliability

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Appendix B. Inventory of water supply reliability estimation in California

Appendix C. Notable successes

Appendix D. Insights from preworkshop questionnaire and postworkshop interviews

Table 1: Portfolio elements available for managing modern water supply systems

Box 1. Reflections on Covid-19, low probability events, unknown unknowns, and black swans